

Introduction to pest control programs

Victorian dairy manufacturers are required under both the Code of Practice for Dairy Food Safety and Standard 3.2.2 of the Food Standards Code (Food Standards Australia New Zealand) to have measures in place to control pests as part of an approved food safety program^{1,2}. This note provides guidance and references to help manufacturers adopt a pest control program that will ensure dairy food is protected from contamination by pests, and also the pesticide chemicals involved in controlling them.

What are pests?

Examples of pests that may need to be covered by a pest control program include rodents (mice and rats), ants, flying insects, spiders, cockroaches, mites and birds. Rural areas in particular may also be susceptible to seasonal infestations by pests such as crickets, locusts or mice. Larger animals such as cats or possums may also pose a risk to food safety.

This list is not exhaustive. For information on how to control unusual or less common pests, it is recommended that a professional pest control company be consulted for advice.

Creating and maintaining an effective pest management program

Effective pest management involves four main steps:

1. Understanding the site's needs, taking into consideration the operation's size and location, products being manufactured, processing methods, and type and level of waste generated. This will help identify the specific pests that need to be managed.
2. Designing a program that meets the needs of the site, while ensuring minimal risk of food contamination. This is often best done in conjunction with a registered pest management company. It will include what control methods will be used, where pest control devices would be best placed, and how frequently inspections will occur. The *Code of Practice for Pest Management in the Food Industry in Australia and New Zealand*³ is a useful reference source covering these program arrangements.
3. Maintaining the program to ensure that it is effective and safe, and that appropriate records are being kept.
4. Having a staff member nominated as the person responsible for overseeing the program, and acting as a

point of contact to liaise with the pest control company representative (if one is engaged). Although a contract service assists in reducing the amount of time it takes to manage a pest control program, it is important to remember that the manufacturer is ultimately responsible for ensuring that the pest control program is safe and effective.

Pest management methods

Effective programs combine both *preventative* and *control* treatment methods to get the best overall result.

Preventative methods

Preventative methods aim to make the site unattractive to pests by minimising access to shelter, warmth, dryness, darkness, crevices, perches and exposed food or waste.

Good house-keeping practices and site maintenance help prevent pest issues and minimise the need for pest control treatments. Involving and training all staff on the importance to the business of effective pest control will be important in helping to identify early signs of any infestations.

Consideration should also be given to the changing seasons throughout the year, such as the arrival of the first heavy rains or cold weather, which will force many pests living outside to seek a safer and warmer place to call home.

Some examples of preventative measures include:

- inspection of all buildings to ensure they are pest-proof
- removing clutter such as obsolete processing and building equipment off site
- keeping the building surrounds such as lawns well maintained
- regular inspection of incoming goods
- making sure that any food source is tightly sealed, such as incoming ingredients or damaged packaging of finished product
- storing all products off the ground
- cleaning up spillages promptly
- using enclosed containers for waste disposal.

Further references are available which provide greater detail on areas that can be focussed on^{3,4}.

Control methods

Control methods work by repelling or killing pests. A variety of approved methods exist which are suitable for each particular target pest species, and a combination or rotation of these may be the best approach to counter pests' acquired aversion or developed resistance.

Examples of control methods include:

- rodent monitoring stations or poisonous baits for mice and rats. Advice on control measures specific for rodents is available through government agencies⁵.
- insecticide treatments, adhesive boards or electronic light traps to control insects.

Any method adopted must not create a further food safety hazard. The following are examples of how this should be taken into consideration.

- Rodenticides must be used in a bait block formulation to avoid accidental spread of bait granules, with blocks placed in tamper-resistant bait stations that are anchored, except when used for baiting in secure areas.
- Tubes used in insect light traps inside a building must be shatterproof.
- Consider possible dispersal from 'exploding' insects upon electrocution when siting these devices.
- Preparation and application of a pesticide must follow the manufacturer's label and material safety data sheet directions, with a risk assessment of the task being undertaken beforehand. Application needs to be precise to avoid the contamination of food or accidental coverage of non-targeted areas.
- Dusts and pelletised or liquid baits should not be used in food production and processing areas because of the potential for transfer to product or food contact areas.
- Regulatory approval of any chemicals/agents used must be verified. (e.g. by APVMA).⁶
- The storage of all chemicals/agents used must be secure and effective control and location of all baits maintained.



Rodent bait station

Consultation with a professional pest management company is recommended to address the above criteria, and to tailor a specific program best suited to the needs of the site.

Pest control program documentation

After the site needs have been assessed and the pest control program has been designed, the manufacturer must document the program. This will include the procedures that describe the program, as well as records which show how the program is being complied with, and the frequency of reviews.

A basic template that could serve as a guide for documenting the pest control program for a business is available through Food Standards Australia New Zealand⁷.

The manufacturer also needs to keep any documents which are necessary to support the program. For example, material safety data sheets should be kept to show that the chemicals in the program are appropriate for their application, and that those stored on-site are kept in a secure location. The site plan is required to identify the current location of all bait stations.

Pest control forms need to include details of the chemical product name, active ingredients, quantity used and batch numbers.

Measuring the success of a pest control program can be problematic as nil activity is the ultimate goal. However, there are strategies that can be used for trending analysis of the program, or assessing the performance of the pest control company by applying agreed key performance indicators (KPIs)³.

Key points to consider

- Dairy manufacturers must have a documented pest control program as part of their food safety program.
- Procedures describing the program (what pests are monitored and how they will be controlled) form part of the plan, and appropriate records must be kept.
- A professional pest control company may be contracted to advise and undertake most of the actions required, however, the manufacturer remains ultimately responsible for ensuring that the pest control program is safe and effective.

References

1. Dairy Food Safety Victoria, *Code of Practice for Dairy Food Safety, Section 5.2.2.2 Pest Control*, DFSV, Melbourne 2002.
2. Food Standards Australia New Zealand, *Australia New Zealand Food Standards Code, Standard 3.2.2.Clause 24. Animals and pests*, Commonwealth of Australia, Canberra 2012.
3. Australian Environmental Pest Managers Association, *A Code of Practice for Pest Management in the Food Industry in Australia and New Zealand*, AEPMA 2009.
4. Codex Alimentarius Commission, Recommended International Code of Practice, General Principles of Food Hygiene, CAC/RCP 1-1969, Rev.4, 2003.
5. Victorian Government Department of Human Services, *Pest Control Technical Note – Rodents*, Melbourne 2011.
6. Australian Pesticides and Veterinary Medicines Authority (APVMA)
7. Food Standards Australia New Zealand, *A Guide to Standard 3.2.1 Food Safety Programs, Appendix 2. Example of a support program: pest control*, Commonwealth of Australia 2007.

Further information

Further food safety technical information is available at www.dairysafe.vic.gov.au

Or contact Dairy Food Safety Victoria on (03) 9810 5900 or info@dairysafe.vic.gov.au

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